

AMENDMENTS TO THE CLAIMS

1-3 (canceled)

4. (currently amended) An optical ~~encoder~~ encoding system comprising:

a photo-emitter;

a code strip having comprising:

a calibration area for generating a calibration signal, wherein said calibration area comprises a degree of transparency, wherein said transparency decreases as contaminants collect on said code strip;

an indexing area for generating an indexing signal; and

an encoding area for generating an encoding signal;

a detector having comprising:

a calibration photodiode for converting the light from the calibration area into an electrical calibration signal, wherein said calibration signal is used to determine said degree of transparency of said calibration area; and

an indexing photodiode for converting light from said indexing area into an electrical indexing signal; and

an encoding photodiode for converting light from said encoding area into an electrical encoding signal; and

a circuit coupled ~~to~~ with said detector and said photo-emitter, wherein if said degree of transparency of said calibration area is insufficient, said circuit modulates increases a current to said photo-emitter to compensate for said insufficient transparency. according to said calibration signal.

5-7 (canceled)

8. (currently amended) The optical ~~encoder~~ encoding system of Claim 4, wherein said code strip is arranged such that light from said photo-emitter passes through transparent areas on said code strip.

9. (currently amended) The optical ~~encoder~~ encoding system of Claim 4, wherein said detector is arranged to receive light which passes from said photo-emitter through transparent areas on said code strip.

10-13 (canceled)

14. (currently amended) The optical ~~encoder~~ encoding system of Claim 4, wherein said circuit modulates current to said photo-emitter in response to said calibration signal originating from said calibration photodiode on said detector.

15. (currently amended) An optical encoding method comprising:
generating light from a light source;
transmitting said light through a code strip, said code strip comprising a calibration area, an indexing area and an encoding area;
receiving said light after it has been transmitted through said calibration area;
converting said light into a calibration signal;
using said calibration signal to determine whether or not modulate a degree of transparency of said calibration area brightness of said light is sufficient, wherein said degree of transparency is decreased as contaminants are deposited on said code strip[.]; and
if said transparency is insufficient, increasing a current to said light source to compensate for said insufficient transparency.

16. (original) The optical encoding method of Claim 15, wherein the calibration signal is a function of a degree of transparency of the calibration area of the code strip.

17. (original) The optical encoding method of Claim 15, wherein the brightness of said light is controlled by the electrical calibration signal.

18. (original) The optical encoding method of Claim 15, wherein the brightness of said light is a function of the degree of transparency of the calibration area of said code strip.

19. (new) The optical encoding system of Claim 4 further comprising a wiper, wherein if said degree of transparency of said calibration area is insufficient, said wiper wipes said code strip to remove said contaminants deposited on said code strip.

20. (new) The optical encoding method of Claim 15 further comprising operating a wiper to remove said contaminants from said code strip to increase said transparency of said code strip, if said transparency is insufficient.